

Application No. : 09/422,208
Filed: : October 19, 1999

By this amendment, the Applicant has amended Figure 3, canceled Claims 1-6, amended Claim 7 to correct an informality, and added new Claims 8-24. Claims 7-24 remain pending for consideration.

RESPONSE TO DRAWING OBJECTIONS

The Office Action objected to the drawings under 37 C.F.R. § 1.83(a) because the drawing must show every feature of the invention. In particular, the Office Action notes that the drawings do not illustrate a light source as set forth in original Claim 3. Figure 3 has been amended as set forth in the attached document entitled "SUBMISSION OF SUBSTITUTE DRAWINGS FOR APPROVAL BY EXAMINER."

The modifications are supported throughout the originally filed specification. For example, on Page 5, Lines 4-5, the originally filed specification indicates the product 202 is exposed to ultraviolet light. Accordingly, the Applicant respectfully submits that no new matter is introduced by the proposed drawing changes and therefore, respectfully requests the withdrawal of the objection to the drawings.

OBJECTIONS TO CLAIM 7

The Office Action objected to Claim 7 for typographical reasons, particularly, because Claim 7 included an additional "and." The Applicant has amended Claim 7 to remove the typographical error. Therefore, the Applicant respectfully requests the withdrawal of the objection to the drawings.

REJECTION OF CLAIM 7 UNDER 35 U.S.C. § 103

The Office Action rejected Claim 7 under 35 U.S.C. § 103 as being unpatentable over the '424 patent in view of the Shibata patent. In view of the following discussion, the Applicant respectfully traverses this rejection.

In order to establish a *prima facie* case of obviousness for a claim, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Accordingly, to sustain the foregoing rejection of Claim 7, the '424 and Shibata patents must identically teach or suggest every element of Claim 7. The Applicant respectfully submits

that the references, alone or in combination, do not teach or suggest the elements of Claim 7 for the following reasons.

As discussed in the Applicant's specification, one drawback of conventional optical inspection devices is that they often malfunction when the stock materials used in injection molding are sufficiently transparent. The Applicant determined, among other things, that by adding fluorescent colorant to the stock materials and then energizing the fluorescent colorant with ultraviolet light, the Applicant increased the delectability of workpiece defects or damaging leftover stock materials, thereby alleviating the detection problems of conventional devices. According to one embodiment, the fluorescent coloring is transparent, and therefore, does not change the original color of the workpiece in ambient light.

Thus, the Applicant disclosed and claimed use of the emissions of the fluorescent coloring energized by ultraviolet light, not ambient light, to improve the functionality of inspection devices and to highlight potentially damaging materials leftover in the mold. For example, Claim 7 recites a method of testing a substantially transparent product with an optical tester where the method comprises, among other things, examining the product with an optical testing device which is responsive to the fluorescent colorant when exposed to ultraviolet light.

In contrast, the '424 patent discloses energizing products made from fluoroplastics in order to read a tag which identifies the source, lot number, or the like of the product. See Column 1, Lines 12-18, Column 2, Lines 1-5, and the like. Thus, the Applicant respectfully submits that the '424 patent does not teach or suggest improving the ability of optical product testers or optical inspection devices by using fluorescent colorant.

The Shibata patent discloses a defect detecting device where the brightness of a product measured by photodetectors is compared to a standard, which may be either the luminance of the surface mold or the plastic article under ambient light. See Column 6, Lines 18-25. Thus, the Shibata patent simply discloses a conventional inspection device which employs the luminance of the article under normal conditions to make defect determinations. Thus, the Shibata patent suffers from the same drawbacks discussed above, i.e., that some colors of material will be difficult to process. For example, when the Shibata inspection device cannot distinguish between the mold and the plastic, the Shibata patent recommends recoloring the molding to increase the distinction between the mold and

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the plastic. See Column 4, Lines 18-25. The Applicant submits that the recoloring solution of Shibata still suffers from the foregoing drawbacks when the workpiece and the fluorescent colorant are transparent.

Therefore, the Applicant respectfully submits that the '424 patent and the Shibata patent, individually or in combination, do not teach or suggest the detection of defects or leftover injection molding using the visible light generated by energized fluorescent colorant. In fact, as discussed above, the Shibata patent teaches away from the claimed solution by recommending changing the color of the mold when detection becomes problematic. Accordingly, the Applicant respectfully submits that the cited prior art do not teach or suggest all of the claim elements, and therefore, the Applicant requests withdrawal of the rejection of Claim 7.

NEW CLAIMS

New Claims 8-24 have been added to more fully define the Applicant's invention and are believed to be fully distinguished over the prior art of record.

REQUEST FOR TELEPHONE INTERVIEW

Pursuant to M.P.E.P. § 713.01, in order to expedite prosecution of this application, the Applicant's undersigned attorney of record hereby formally requests a telephone interview with the Examiner as soon as the Examiner has considered the effect of the arguments presented above. The Applicant's attorney can be reached at (949) 721-2946 or at the number listed below.

CONCLUSION

In view of the forgoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be resolved, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved. Also, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

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Respectfully submitted,

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Version With Markings to Show Changes Made

Insertions appear as underlined text, for example, insertions, while deletions appear as strikethrough text, for example, ~~deletions~~.

7. (Amended) A method of testing a substantially transparent product with an optical tester, the method comprising:

incorporating fluorescent colorant with the product; ~~and~~
exposing the product to ultraviolet light; and
examining the product with an optical testing device which is responsive to the fluorescent colorant when exposed to ultraviolet light.

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